

WHAT IS CLAIMED IS:

1. A lithium battery comprising a positive electrode,
a negative electrode, and a non-aqueous electrolyte,

wherein manganese dioxide containing 0.1 to 3 % by weight
5 of boron is used as said positive electrode and a lithium alloy
containing 0.05 to 2 % by weight of aluminum is used as said
negative electrode.

2. The lithium battery according to claim 1, wherein said
boron is added to manganese dioxide by adding boric acid.

10 3. The lithium battery according to claim 1, wherein the
positive electrode is produced by heat treatment of manganese
dioxide after addition of boron at a temperature ranging from
350 to 430°C.

15 4. The lithium battery according to claim 1, wherein 0.02
to 2 % by weight of phosphorus is further added to manganese
dioxide of said positive electrode.